



## **Tumors, Transplants and Technology: How Machine Learning and 3D Printing are Improving Personalised Healthcare**

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# SHOWCASE

## **TUMORS, TRANSPLANTS AND TECHNOLOGY: HOW MACHINE LEARNING AND 3D PRINTING ARE IMPROVING PERSONALIZED HEALTHCARE**



axial3D is a medical technology firm working to drive the global adoption of 3D printing within healthcare.

25% of surgeons are expected to use 3D printed models to practice before surgery by 2021. However, bottlenecks such as the availability of staff and resources result in many hospitals not utilizing the technology to its fullest potential. A spin out company from Ulster University in Northern Ireland, axial3D is solving this problem by applying Machine Learning techniques to augment and automate the process of segmenting 2D images and turning them into 3D printable objects.

axial3D has built a scalable, accessible platform for clinicians to access 3D printing without the capital expenditure or manpower traditionally required, using a web-based software solution designed to record, track and manage data within existing medical 3D print labs.

The company is now collaborating with animation specialists HUMAIN to adapt facial recognition animation software for internal anatomy feature identification funded by the AHRC Creative Cluster, Future Screens NI.

## **AXIAL3D, DIGITAL CATAPULT NI & FUTURE SCREENS NI**



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Dr Justin Magee, Research Director for Art & Design

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